



DEPARTMENT OF MOLECULAR BIOLOGY,
KING'S BUILDINGS,
MAYFIELD ROAD,
EDINBURGH, EH9 3JR

Telephone: 031-667 1011:

Professor W. Hayes, M.B., F.R.S.
Professor M. R. Pollock, M.B., F.R.S.

Ext. 3282
Ext. 3290

Professor J. Lederberg,
Department of Genetics,
School of Medicine,
Stanford University,
Stanford,
California 94305.

25th October 1972

Dear Josh,

Many thanks for your note of October 18. I had seen your letter to Nature, and had realised that you would not have then seen my Griffith lecture. I enclose literally my last copy of it - reserved for a "most distinguished" applicant!

I can get Xerox copies of the letters you mentioned referred to as "personal communications" though I doubt if you will get very much more from them than what I have extracted to put in my paper. There is also, as you may know, a fairly well-known letter from Oswald Avery to his brother Roy sent to me by S.D. Elliot, and I can let you have a copy of that too.

My guess is that even if Avery had "not been waiting", someone or other would have got on to analysing Griffith's phenomenon properly before very long. I remember as an undergraduate at Cambridge in 1935 being taught about the Griffith discovery, and we all discussed it at some length in the class. I also clearly remember first reading Avery's 1944 classic and thinking "so it looks as if it is DNA after all". There were quite a number of "leads in" to DNA - from histological and chemical work on nuclei and chromosomes etc., and even before 1944 I think people were beginning to query the previous assumption that it could only have been protein. Bawdon and Pirie certainly believed that nucleic acid might be just as, or possibly more important, though I do not think they came out clearly in print to that effect.

I am interested that you think that "Watson and Crick would have ended up putting the structure of DNA together in 1953 regardless of Avery". Judging from my interpretation of what Jim wrote in his book and what Maurice Wilkins told me as to why he and his group took up DNA, it was pretty firmly based on the strong feeling that DNA was going to yield something exciting - or at least very important. I think the decisions of those two groups of workers to plunge into DNA was largely due to Avery, and their work would have been delayed quite a bit otherwise.

I find these sorts of speculations quite fascinating, but at the moment am concentrating more on the very interesting period between 1860 and 1900 when those early biologists were groping their way towards thinking of heredity in chemical terms, and I am intending to do quite a bit of research into that period if I can find the time.

Let me know for sure if you would like copies of the letters I have mentioned and, after checking that the authors have no objection, I will send them off to you.

With kind regards,

Martin

M.R. Pollock
Professor